



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,142	04/15/2004	Deanna Lynn Quigg Brown	AUS920040197US1	7822
35525	7590	11/07/2007		
IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380			EXAMINER TORRES, JOSEPH D	
			ART UNIT	PAPER NUMBER
			2112	
			MAIL DATE	DELIVERY MODE
			11/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/825,142

Applicant(s)

BROWN ET AL.

Examiner

Joseph D. Torres

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

The previous restriction requirement is withdrawn.

Claim Objections

Claims 2, 6-10 and 14 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The language in claims 2, 6-10 and 14 is descriptive in nature describing the structure of an abstract packet data structure. Claims 2, 6-10 and 14 fail to recite any step that further limits the method of claim 1.

Claims 16, 20-25 and 28 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The language in claims 16, 20-25 and 28 is descriptive in nature describing the structure of an abstract packet data structure. Claims 16, 20-25 and 28 fail to recite any structural element that further limits the apparatus of claim 15.

Claims 31 and 34-38 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Art Unit: 2112

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The language in claims 31 and 34-38 is descriptive in nature describing the structure of an abstract packet data structure. Claims 31 and 34-38 fail to recite any instruction that further limits the product/program/signal of claim 30.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 6-10, 14, 16, 20-25, 28, 30 and 34-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 2, 6-10 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: any step connecting the data structures in claims 2, 6-10 and 14 to the steps of claim 1.

Claims 16, 20-25 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: any structural elements connecting the data structures in claims 16, 20-25 and 28 to the steps of claim 15.

Art Unit: 2112

Claims 30 and 34-38 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted essential elements are: any instructions connecting the data structures in claims 31 and 34-38 to the product/program/signal of claim 30.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. A program and/or signal is a computer program product and neither signals nor programs fall into any of the statutory categories of invention; hence are non-statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maezawa; Hirofumi et al. (US 6145024 A, hereafter referred to as Maezawa) in view of Kondo; Satoshi et al. (US 6618396 B1, hereafter referred to as Kondo) and Lansing, Shane P. et al. (US 20030058862 A1, hereafter referred to as Lansing).

35 U.S.C. 103(a) rejection of claims 1, 15, 29 and 39.

Maezawa teaches receiving a data packet at a first partition in the interpartition virtual network from a second partition in the interpartition virtual network in the logical partitioned data processing system (col. 3, lines 60-65, col. 12, lines 1-12 and Figure 1 in Maezawa clearly suggest receiving data packets at a first partition in the interpartition virtual network of Figure 3 from a second partition in the interpartition virtual network of Figure 3 in the logical partitioned data processing system of Figure 3); and verifying a checksum in a first partition in the logical partitioned data processing system for the data packet (Figure 5 in Maezawa teaches that each packet has a CRC checksum used for verifying received data, which clearly suggests verifying a checksum in a receiving

first partition in the logical partitioned data processing system for the data packet responsive to receiving the data packet).

However Maezawa does not explicitly teach the specific use of **identifying a state of a first flag and a state of a second flag in the data packet**; and **selectively** verifying a checksum **based on the state of the first flag and the state of the second flag**.

Kondo and Lansing, in an analogous art, teaches use of identifying a state of a first flag (Step 905 in Figure 9 and claim 1 in Lansing teaches identifying a state of a first CRC flag used to indicate the presence of redundancy) and a state of a second flag (col. 39, lines 55-67 in Kondo teaches a second ECC flag in a packet indicating whether error are present in the packet or not) in the data packet; and selectively verifying a checksum based on the state of the first flag (Steps 905-915 in Figure 9 of Lansing) and the state of the second flag (col. 39, lines 62-67 in Kondo teaches identifying/detecting the second ECC flag to selectively verify the CRC checksum).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Maezawa with the teachings of Kondo and Lansing by including use of identifying a state of a first flag and a state of a second flag in the data packet; and selectively verifying a checksum based on the state of the first flag and the state of the second flag. This modification would have been obvious to one of ordinary skill in the art, at the time the invention was made, because one of ordinary skill in the art would have recognized that use of identifying a state of a first flag and a state of a second flag in the data packet; and selectively verifying a checksum based on the state of the first flag and the state of the second flag would have provided a flexible

arrangement whereby the packet creator can decide whether CRC is needed (Abstract in Lansing) and would have provided flagging for erroneous data for use by system controllers (col. 35, lines 55-62 in Kondo).

35 U.S.C. 103(a) rejection of claims 2, 16 and 30.

Col. 39, lines 55-67 in Kondo teaches a second ECC flag in a packet indicating whether errors are present in the packet or not. Step 905 in Figure 9 and claim 1 in Lansing teaches identifying a state of a first CRC flag used to indicate the presence of redundancy.

35 U.S.C. 103(a) rejection of claims 3, 17 and 31.

Steps 905-915 in Figure 9 of Lansing teaches verifying the CRC, if CRC is present indicated by the first CRC flag and col. 39, lines 62-67 in Kondo teaches that verifying the checksum, if there are no errors in the packet indicated by the second ECC flag.

35 U.S.C. 103(a) rejection of claims 4, 18 and 32.

Steps 905-915 in Figure 9 of Lansing teaches skipping the verification step, if no CRC is present indicated by the first CRC flag.

35 U.S.C. 103(a) rejection of claims 5, 19 and 33.

Col. 39, lines 62-67 in Kondo teaches that skipping the checksum verification, if there are errors in the packet indicated by the second ECC flag.

35 U.S.C. 103(a) rejection of claims 6-10, 14, 20-24, 28 and 34-38.

Kondo and Lansing teach adaptive parameters (Steps 905-915 in Figure 9 of Lansing teaches a first CRC flag used to indicate the presence of redundancy; Col. 39, lines 62-67 in Kondo teaches a second ECC flag in a packet indicating whether errors are present) for allowing a sending station to notify a receiving station whether a transmitted packet has redundancy for use in verifying the packet based on a first CRC flag and whether the packet has errors so that receiving controller can imitate error handling based on a second ECC flag intended for use in the particular embodiments of claims 6-10, 14, 20-25, 28 and 34-38.

35 U.S.C. 103(a) rejection of claims 11 and 25.

Page 3 of the Applicant's specification teaches that virtual adapters are used to send packets to each other in an interpartition virtual network. Multiplexer channel devices 3 and 10 in figure 1 of Maezawa are examples of virtual adapters used for interpartition communications (see Abstract in Maezawa).

35 U.S.C. 103(a) rejection of claims 12 and 26.

Maezawa teaches a first generating means for generating a new data packet for a target destination (interface driver 33 in Figure 2 of Maezawa); second generating means for generating the checksum for the new data packet if the new data packet is to be sent outside of the interpartition virtual network by a physical network adapter

(external interface protocol control circuit 37 in Figure 2 of Maezawa); and sending means for sending the new data packet to the target destination (multiplex/distribution control circuit 36 in Figure 2 of Maezawa).

35 U.S.C. 103(a) rejection of claims 13 and 27.

Maezawa teaches means for sending the new data packet to the target destination using one of the physical network adapter (external interface protocol control circuit 37 in Figure 2 of Maezawa) or a virtual network adapter (link connection control circuit 38 in Figure 2 of Maezawa).

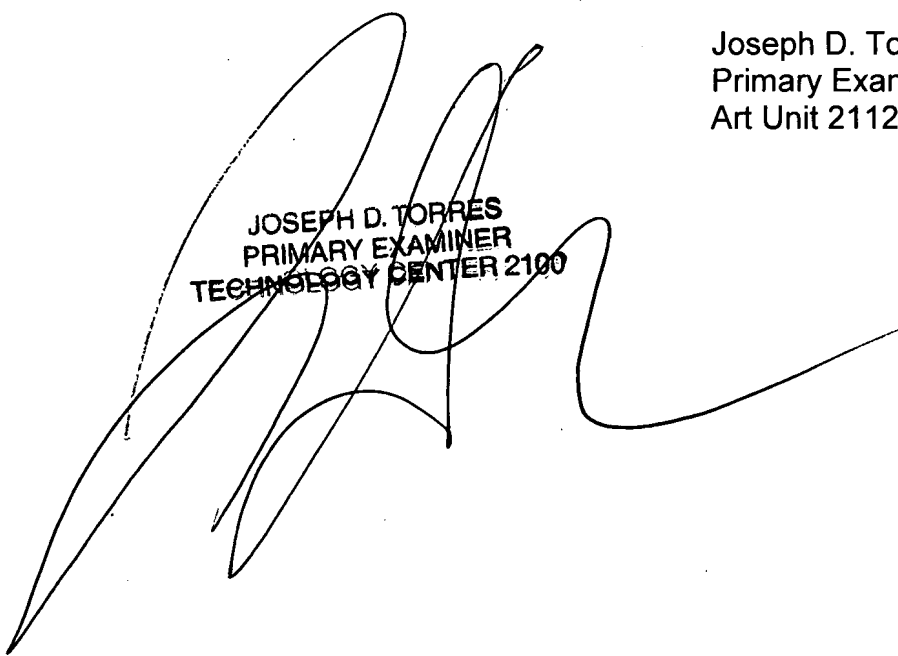
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph D. Torres, PhD
Primary Examiner
Art Unit 2112



JOSEPH D. TORRES
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100